

Notice of Allowability

Application No.

10/036,234

Applicant(s)

HWANG ET AL.

Examiner

Art Unit

Dac V. Ha

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 03/19/07.
2. ☒ The allowed claim(s) is/are 2-10, 27, 76-78, 11-14, 21, 25-26, 28-32, 34-44, 81, 48, 52, 53, 56-63, 79-80, 69, 73, 74, renumbered as 1-53, respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Dac V. Ha
Primary Examiner
Art Unit: 2611

DETAILED ACTION

1. This office action is in response to the amendment filed on 03/19/07.

Allowable Subject Matter

2. Claims 2-10, 27, 76-78, 11-14, 21, 25-26, 28-32, 34-44, 81, 48, 52, 53, 56-63, 79-80, 69, 73, 74, renumbered as 1-53, respectively, are allowed.

3. The following is an examiner's statement of reasons for allowance:

Applicant has amended the claims in accordance to the office action dated 11/28/06. Upon further consideration, amended claims 2-10, 11-14, 21, 25, 26, 28-32, 34-44, 48, 52, 53, 56-63, 69, 73, 74 and newly added dependent claims 76-81 are allowed. Particularly, prior art of record (closest reference, Myers – US 5, 625,644), taken individually or collectively, fails to suggest a motivation for incorporating in an apparatus and method for serial link between a transmitter and receiver, including the claimed subject matter “the transmitter is coupled to receive video data and configured to generate a sequence of video code words by encoding the video data, and the transmitter is configured to transmit to the receiver over the serial link a first burst of the video code words followed by a burst of the selected code words followed by a second burst of the video code words, wherein each of the video code words is a member of the full code word set and at least one of the video code words is not a member of the robust subset” in independent claim 2 and similarly in independent claims 11, 34 (claims 3-10, 27, 76-78, 12-14, 35-44, 81) depend therefrom); “the transmitter is coupled to receive source words of the input data, where each of the source words comprises N bits, N is less than L, and N is greater than M, and the transmitter is configured to pack

the source words into M-bit words of the input data and to encode each of the M-bit words of the input data as one of the selected code words” in independent claim 21 and similarly in independent claims 48, 69; “wherein each of the selected code words is indicative of a sequence of L binary bits, and the selected code words have fewer contiguous zero bits and contiguous one bits per code word on the average than do the code words of the full code word set excluding the selected code words” in independent claim 25 and similarly in independent claims 52 & 73; “wherein each of the selected code words is indicative of a different sequence of binary bits, the transmitter is configured to transmit the sequence of selected code words to the receiver over the serial link as a sequence of rising and falling voltage transitions, and the selected code words have bit patterns that implement DC balancing by limiting voltage drift of the serial link during transmission of said sequence of selected code words to a predetermined amount” in independent claim 26 and similarly in independent claims 53 & 74; “wherein the input data determined by the burst of the selected code words can be encoded as a first conventional sequence of the code words of the full code word set, the input data determined by the second burst of the selected code words can be encoded as a second conventional sequence of the code words of the full code word set, and the input data determined by the third burst of the selected code words can be encoded as a third conventional sequence of the code words of the full code word set, and wherein said burst of the selected code words is less susceptible to inter-symbol interference during transmission over the serial link than would be the first conventional sequence, said second burst of the selected code words is less susceptible to inter-

symbol interference during transmission over the second serial link than would be the second conventional sequence, and said third burst of the selected code words is less susceptible to inter-symbol interference during transmission over the third serial link than would be the third conventional sequence” independent claim 28 (claims 29-32 depend therefrom); “generating bursts of encoded control words by encoding control bits; and transmitting over the link a first burst of the encoded control words between at least a first burst of the video code words and the burst of the selected code words, and a second burst of the encoded control words between the burst of the selected code words and at least a second burst of the video code words” in independent claim 56 (claims 57-63, 79 – 80 depend therefrom). Thus, claims 2-10, 27, 76-78, 11-14, 21, 25-26, 28-32, 34-44, 81, 48, 52, 53, 56-63, 79-80, 69, 73, 74 are found to be novel and unobvious over prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dac V. Ha whose telephone number is 571-272-3040. The examiner can normally be reached on 5/4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dac V. Ha
Primary Examiner
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